
UTB Systems Center Newsletter

Second/Third Quarters

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The UTB Systems Center Newsletter is an authorized publication of news and information concerning the UTB community. Editorial content is unofficial and not authority for action. The views and opinions expressed herein are not necessarily those of the Department of Transportation or the United States Coast Guard.
MKC Tom Gigliotti, Editor.

CROSSING THE BAR

Sunset and evening star,
 And one clear call for me!
 And may there be no moaning of the bar
 When I put out to sea,
 But such a tide as moving seems asleep,
 To full for sound and foam,
 When that which drew from out the boundless deep,
 Turns again home.
 Twilight and evening bell,
 And after that the dark!
 And may there be no sadness of farewell
 When I embark;
 For though from out bourne of Time and Place
 The flood may bear me far,
 I hope to see my Pilot face to face
 When I have crossed the bar.

Alfred,

Lord Tennyson

In Memorium

Boatswain's Mate Second Class David A. Bosley

Machinery Technician Second Class Matthew E.
 Schlimme

Seaman Clinton P. Miniken

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MLB/UTB Standardization Program Policy Change
VT903 RPM Parameter Change

CHANGING OF THE GUARD AT THE UTB SYSTEMS CENTER

By LT John Homan

LCDR Bob Steiner has moved on to the great Pacific Northwest (Surface Ops, Group Astoria). In my former position as UTB resource manager at HQ, I worked closely with LCDR Steiner in keeping the UTB a safe and reliable platform. It's a tough and sometimes unpopular job, but LCDR Steiner managed to make it as palatable as possible for you folks in the field. I want to thank LCDR Steiner for his contributions to the UTB community and wish him and his family the best of luck in Astoria, Oregon.

I report to the UTBSC from Commandant (G-OCS-2). Among my jobs at HQ, I was the CG Boat Manager, UTB resource manager, and IMARV project officer. I'll continue to work closely with Commandant (G-OCS-2) on UTB matters.

The boat crew qualification process and the UTB Standardization Program exist to ensure safe and reliable UTB's, with professional crews embarked, are available to serve the public. While these programs may need some fine tuning periodically, I believe in them. The training of our crews and maintenance of our boats must be our highest priorities.

I look forward to working with you all. When in Yorktown, stop by the UTB Systems Center for a visit.

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COX'N CERTIFICATION FOR OIC's

By LCDR Bob Steiner

Before I launch into my topic, I would like to sincerely congratulate all of the Officers in Charge and senior Boatswain's Mates who are spending time training and mentoring their boat crews underway. You are reaping the obvious benefits of respect from your crew, better morale, sharper boats, and safer, more proficient crewmembers and coxswains. The effort you continue to exert is easily seen when STANTEAM visit time rolls around or when you send someone to Coxswain "C" school.

I have noticed a disturbing trend as the STANTEAM's have traveled the country, following their assessment schedule. At a number of units, Officers in Charge, Executive Petty Officers and Senior Boatswain's Mates at units with Commanding Officers are not getting underway with their boat crews. In many cases, the OIC/XPO/senior BM are able to document less than 10 underway hours in the six months preceding a STANTEAM visit.

COMDTINST 16114.9B, chapter 2.C and 2.D requires the OIC/senior BM to be certified as coxswains at their unit. The same manual states "Group Commanders are responsible for ensuring that all subordinate Officers in Charge maintain current coxswain or surfman certification." It goes on to state that, in the event of non-compliance "after a reasonable amount of time," administrative action should be taken. We are finding that these long-standing requirements are well known by senior station personnel and by most Group Operations personnel. We are also finding that, since no coxswain can possibly complete their semi-annual currency requirements with only 4.5 or 7 hours underway in the past six months, the requirements are being disregarded.

I want to call on the senior Boatswain's Mates in these positions to make getting underway with your boat crews your first priority. The reason E7, E8 and E9 Boatswain's Mates are assigned to stations is to ensure that our junior crewmembers get the full benefit of your experience and expertise. If you allow the responsibility for training your crew to devolve to a BM2, you are not doing what you were sent there to do and your people are not getting what they need.

Pleading a paperwork overload is beating a dead horse. Everyone who has been around long enough to recall the Station Staffing Study (SSIC 5200, published in July 1991) knows what the net result has been. The

Executive Summary of that report had some interesting things to say. Among the list of station problems that needed correction, the summary included "Inappropriate Use of Senior Personnel: Station OIC's and XPO's are spending an inordinate amount of their scarce time on paperwork and are therefore unavailable to train younger, less experienced station members." Among the needed solutions, the summary went on to state "OIC's and XPO's must spend far more of their time underway, conducting on-the-job training and fine-tuning the skills of his or her boat crews."

The station administrative load obviously has not, and will not decrease. If you want to be an OIC, suck it up and stay late to get your administrative work done. You just have to decide what's important to you. If your crew isn't important enough to you for you to make sure they are properly trained, you have a problem with your priorities. You will accomplish what you care about. Setting a personal minimum of ten hours underway per month is only 2.5 hours per week. Opt out of 1 television movie per week and get underway instead.

There is something in this for station Commanding Officers and Executive Officers too. Even though it is not required, I encourage you to certify. My hat is off to those who have. That old saying "If you take care of your crew, your crew will take care of you" has never been more true.

LAGGING

By MKC Tom Gigliotti

Through numerous 41' UTB assessments, we have found a serious discrepancy in the engine room. There have been several pieces of lagging missing from the exhaust system.

The lagging installed in the engine room of the UTB is there for several reasons. First, and foremost, for the safety of personnel when moving through and working in the engine room, preventing them from receiving unnecessary and painful burns. Another reason

lagging is installed is to prevent flammable liquids from coming into contact with the extremely hot surfaces, possibly causing a fire. Any way you look at it, safety of our personnel is the main reason for the lagging.

There are numerous items that are categorized as Restrictive Discrepancies. Missing or inadequate exhaust lagging is one of them. This is placed into this category because it endangers the safety of the crew on the boat.

Let's outline where lagging is required, so we can make your boat safer. The following is a breakdown of the areas required to have lagging on them. There is a minimum of 21 pieces required per boat (if you purchase the set through the BOSS book):

1. The flange where the exhaust heat riser bolts up to the exhaust manifold. There are four pieces required per boat. An excellent idea for keeping these pieces in place is to install a hose clamp around them, so they don't fall off the flange.
2. The collar where the turbocharger mounts to the heat riser. STBD engine only.
3. The exhaust turbine casing on the turbocharger. Two per boat.
4. All of the piping and flanges between the exhaust port of the turbocharger and the raised section of piping on the exhaust pipe (just before the pipe returning the cooling water to the exhaust system). There are fourteen pieces required per boat.

If you refer to the BOSS book, page II-109. In order to have a complete set you will have to order the following: Item 14 - 2 ea., Item 15 - 2 ea., Item 16 - 2 se., Item 17 - 2 ea.

CONVERTING LATITUDE AND LONGITUDE FROM DEGREES/MINUTES/SECONDS TO DEGREES/MINUTES AND TENTHS OF A MINUTE AND BACK AGAIN

By BM1 Chuck Howard

As a Coxswain "C" instructor and as a UTB STANTEAM evaluator, one of the more common

problem areas I observe Coast Guard wide is the inability of prospective and qualified coxswains to quickly and accurately convert latitudes and longitudes. Here are three ways to accomplish this.

MATHEMATICALLY

Converting mathematically involves multiplying or dividing by 60. Here's a job aid that was developed at Coxswain "C" school and is used by student coxswains before learning the other two methods. We recommend you put this on charts, in your flight crew check list binder (NSN 7510-00-766-4269/7510-00-240-6012) and with your calculator, or anywhere you find convenient.

TENTH'S

↙ ↘
X 60 ÷
↘ ↙

SECONDS

When you convert tenth's to seconds, you multiply the tenths by 60. When you convert seconds to tenths, you divide the seconds by 60.

LATITUDE & DISTANCE SCALES

Using a divider or compass, a chart that has degrees, minutes and seconds on the latitude scale plus a nautical mile scale divided into tenths, you can convert both latitude and longitude without math. (Sorry this doesn't work on the Ninth District charts, no nautical mile scales.)

To convert seconds to tenths, take your dividers and measure the desired number of seconds on the latitude scale. Without changing the measurement on the dividers, take the dividers and measure the tenth's scale on the chart's distance scale, and you will have your tenths and a pretty fair interpolation of hundredths.

To convert tenths and hundredths to seconds, just reverse the process. Measure out your tenths and hundredths on the distance scale and move your dividers to the latitude scale to read off the seconds.

Do not use the longitude scale, remember a minute of *latitude* equals one nautical mile, longitudes are smaller in length unless you are on the equator.

CALC KEY ON THE MX-200 GPS

On the MX-200 press the CALC key, then find screen # 00. Enter the minutes/seconds or minutes/tenths depending on what you need to calculate, then press the

calculate soft key on the bottom right of the screen, and the GPS will instantly convert the value for you. Once you try it you will be amazed at how simple this method really is.

PILOTHOUSE MOLDING

By MKC Tom Gigliotti

We get a lot of calls for information on the pilothouse back edge molding. This item is becoming harder to find but we have a source that has a supply of it that can be purchased until their supply is exhausted.

The source of supply is Marine Wholesale Distributors out of Alexandria, Virginia. It is only available in 50ft lengths and at time of print it was \$2.28 a foot. The part number is 426664. You only need 24ft per boat. Their phone number is (703)823-5109.

WEEMS WORLD

By BM1 James S. Giuffre

With the installation of BOATALT 95, our proficiency with the Weems plotter must improve due to the limited space on which we have to use our charts. The Weems plotter is a great tool and should be used to its fullest potential. With a little practice, we will all wonder how in the world we managed without it.

The following article was spawned partially out of frustration and the desire to increase students interest in the ability to fully use all the tools at their disposal.

WEEMS WORLD

What in the world can we do with the Weems without a compass rose. More than we probably think we can. Let's list the options and then take each one individually.

- ◆ Plot a relatively straight and accurate bearing or course.
- ◆ Determine the bearing or course in True from a meridian or parallel.
- ◆ Plot a relative bearing from a course or track line.

- ◆ Measure distance in nautical miles in three (3) different chart scales, and yards in two (2) different scales.
- ◆ Substitute for the Loran-C plotter card.
- ◆ Measure distance in statute inches.

Plot a relatively straight and accurate bearing or course:

To accomplish this amazing and sometimes elusive endeavor, there are a few things the operator can do to increase the odds in their favor.

First, ensure that the chart we are working on is laying as flat as possible. Place our sharp pencil point on the object for our bearing line, place to turn, or destination on our track line. This helps to steady the Weems plotter when operating conditions are less than optimal. When it is in place, lay the edge of the Weems against it. Move the Weems edge to the position we want by rotating it around the pencil point. It's much easier to line up only one end of the Weems rather than both at the same time.

Firmly hold the Weems down against the chart while we change our hand position. If by chance we need to transfer our newly found line, firmly grasp the Weems in the center of the roller bracket. Elevate the Weems slightly, (because our chart might not truly be flat from being folded and then stuffed into a cox'n kit) and smooooothly roll the Weems to the desired location.

Determine the bearing or course in True from a meridian or parallel:

This is not as tough as it sounds, but there are a couple of things that we have to do first.

I know that you know that I know that you know the difference between a meridian and a parallel, but we'll review it anyway. A meridian is a plotted line of longitude (runs north and south) on our chart and a parallel is a plotted line of latitude (you guessed it, it runs east and west).

Our Weems plotter has three protractors on it. The ones on the ends are used with parallels and the one in the middle is used with meridians.

Now that we know which protractor to use on what line, how do we position the Weems on that line to read the result? After completing the first task listed, we smooooothly (remember smooooothly) roll the Weems to

either a meridian or parallel, whichever is closest, until the cross hairs of the protractor cover the line. Now follow the line through the protractor to the arc where the bearings are listed and read the result.

While we're on the subject of reading the Weems, we will notice that there are two sets of bearings for each arc. When reading the Weems against a meridian or parallel, determine the general direction of our bearing or course and select the proper set by reading the direction arrows. After all that, remember that the numbers on the protractor are read right to left. Be mindful of this when trying to read the proper bearing.

Plot a relative radar bearing from a course:

To accomplish this we need a couple of things. A track line to be on, an object to plot from, and a radar.

First of all, this only works if we are steering the course from the plotted track line we intend to use as our reference line for our Weems. Being on the track line also helps but is not required.

Obtain the relative radar bearing to our selected charted object. Remember, the radar must be in the relative mode to do this.

Using the plotted track line as the reference line for the Weems, and the protractor for the meridians, simultaneously align the cross hairs on the weems and the relative bearing on the arc of the protractor over our plotted track line. Now roll the weems to the object used for the bearing and plot our line of position. We should be somewhere on that line.

Somewhere in this process we have to engage our brain and make sure that the bearing we took on the radar and the bearing we plotted on our chart are the same. An easy way to do this is to remember which way we are traveling on our track line and that between 001deg and 179deg is always off our starboard and between 181deg and 359deg is off our port. The most important element to remember is that if we use our track line as the reference line on the protractor, the numbers are relative. If we use the protractor on a parallel or meridian, the numbers are in True. Keep this straight and we should be good to go.

Measure distance in N.M. in three different chart scales , and yards in two different scales:

First, we have to ensure we are using the proper scale on the Weems for the chart we are using (not

always the easiest thing to remember to do in moments of stress).

Second, this is not the best way to measure distance on a chart. Pull out our dividers or compass and use the distance scales.

Substitute for the Loran C plotter card:

Remembering that the plotter card is just a card with different size sets of ten equally spaced marks, the left, right, and top edges bear a remarkable resemblance.

Measure distance in statute inches:

The only truly useful function found for this is for measuring the position of collar devices. We do not recommend using this for navigational use.

A real good maintenance tip to keep our Weems rolling smooooothly is to once in a while run a pencil lead along the exposed connecting rod. The graphite doesn't run or smear and will go a long way in keeping our weems in service

CONSOLE BACK QUARTER TURN FASTENERS

By MKC Tom Gigliotti

We have a modification of the 1/4 turn screws used in the console back top panel. The part numbers we were previously giving out will work, but these fasteners seem to work a little better, and they are the ones that are being installed with the electronics package on the back panel to the starboard.

They are available through SouthCo in Philadelphia, PA. Their phone number is (610)459-4000. If they have them in stock, you can buy any quantity you need, otherwise their minimum order must be purchased. Here are the part numbers, you need one of each of these to have a complete set:

Stud	85-11-240-20
Nylon Wear Washer	85-46-101-39
Receptacle	85-47-101-20
Spring	14-18-150-24
Retainer	85-34-201-20

FIELD NOTES FOR GPS USERS

By BM1 Calvin Jones (JED)

A few notes on the GPS: The first thing to remember is if you have any questions, call the UTB Systems Center and ask to speak to a Boatswain's Mate.

1. MOB: Press and hold the button until you get an audible tone. This will take a few seconds longer on some boats than on others. If you do not get an audible tone (what to do next?), press enter, press enable MOB, press enter. This must be done after every MOB evolution.
2. To clear track lines: press plotter; press enter; press other menu; press clear track.
3. The boat type in the setup needs to be powerboat up to 50 kt.
4. It is not necessary to leave the GPS on overnight since the unit has a back up battery, and the unit will prompt the user when the battery needs changing. Our resident GPS guru reminds us that the unit could get a power spike if it is left on while starting up the UTB. If your ET does not agree or has other information, have him phone us here at the Systems Center.
5. Sail plan: Recently on a night nav. run a Boatswains Mate entered several way points and then the final destination (given by me). He inadvertently placed another way point into the sail plan. The result was a failed nav. run. Once the boat arrived at the position I had given him the GPS went to the next way point. The rest is history.

BOATALT 13

BY MK2 Steve Gingues

At just about every unit that we have visited, there is a discrepancy with how the lube oil dipsticks are being marked. BOATALT 13 shows exactly how the markings should appear. The lower scribe mark should be labeled "LOW" and the upper scribe mark should be labeled "HIGH". In between the two marks it should be labeled "ADD 2 QT". The dipsticks should also be labeled for which engine they belong in, because both dipsticks are different lengths. All lettering should be

1/8" high. Print 41UT 4103-5 is the reference for these markings and a excerpt from that print is supplied below.

I don't want to insult anyone's intelligence, but there also appears to be a lot of incorrectly calibrated dipsticks out there. Many rear main seal leaks have been contributed to excess lube oil in the engine. To correctly mark the dipsticks it is done when the oil pan is empty and you are refilling it. Add 4.5 gallons of oil and mark the stick (low mark), now add 2 more quarts and mark the stick again (high mark). After you run the engine, refill it to the full mark. Your dipstick is now properly calibrated. Try to avoid extra markings on the sticks, it is very confusing. It wouldn't hurt to check this at your next oil change.

I know all of this seems too simple to be worth mentioning, but it's worth checking to ensure that BOATALT 13 does not appear on your boat inspection as a discrepancy.

41' UTB SEARCHLIGHTS

By MKC Tom Gigliotti

Through a lot of leg work, the distribution point for the searchlights that are used on the 41' UTB have made a correction to the lights they are sending out.

Both lights are the original Carlisle & Finch lights and are now available through the stock system. The following information provides the part/stock number information for them:

FWD Searchlight	SYM 309	6230-01-215-6362
Aft Searchlight	SYM 301.1	6230-00-295-2776

There is also another forward searchlight, which is made by PHOENIX and will work with minor modifications to the bolt pattern in the cabin top. It is available through the stock system under NSN 6230-01-441-5005.

Either forward searchlight is acceptable for use on the boat.

5000+RPMs

By BM1 James S. Giuffre

Born to be wild. This could possibly describe our fleet of non-standard boats. Small, powerful, and highly maneuverable (not to mention fun) water craft designed to go from point A to point B in as little time as possible. All this and a paycheck too, what could be better?

How about getting to point B in one piece with the ability to perform the mission once you arrive there.

With few exceptions, we are all guilty of turning our coxswain pin into aviator's wings at least once in our careers. But the simple fact of the matter is that boats are meant to be operated in the water, not the air. Continuous unnecessary pounding of boats and boat crews alike will eventually lead to breakdowns and injuries. Irresponsible boat handling places us in the position of nothing to gain and everything to lose.

This sounds like a lecture, doesn't it? Well, that wasn't the intention of this article but since we're here let's pretend that we momentarily left our brain on the dock as we boarded the RHIB. Without a brain it wouldn't take long to get into trouble (I should know, I've been doing it for years). Now that our tail is in the ringer, what do we do? In most cases, by simply reducing or eliminating what got us in the jam will get us out. For instance, speed and/or power will account for most tight spots and sticky situations. Just remember to reduce the throttle in those instances and watch the problem go away. Same thing with steering. Too much helm can cause just as much grief as too much power. In some instances, a helm hard over with excessive power applied can actually lock the wheel in place at just the wrong time (been there).

The easiest way to help ourselves is to follow the practice of leaving one hand on the throttle control head and one hand on the wheel. If we find ourselves needing both hands to control the boat, we are probable well on our way to a mishap. Once in this predicament, our brain (the one we left on the dock) will not let us release hold of something we are hanging on to for dear life. Suddenly our options have been cut in half and odds are that the situation hasn't gotten any better either. By operating the wheel with one hand and placing the other on the throttle control head, our brain doesn't have to convince us to let go of something and it knows where the throttle is.

Why not keep our hand on the throttle and not the control head? Unintentional throttling can occur if we lose our balance or take an unexpected wave, possibly throwing crewmembers around. Also, good crew communication is a vital part of safe small boat operation. Letting the crew know in advance of a throttle change or turn will let them prepare for the maneuver by shifting their weight or holding on a little tighter. But the easiest and most important thing we can do is slow down and run at a reasonable speed during routine operation of our boat. Saving ourselves and our resource from unnecessary abuse will help ensure that we are capable of responding with our maximum effort when it means the most.

BOSS NEWS

Standard Boat Section, Engineering
Logistics Center Baltimore (ELC)

The following information was received from the Standard Boat Section at the ELC in Baltimore so we could include it in our newsletter for your information:

PART NUMBER/NSN CHANGES AND ADDITIONS

The following NSNs have been established by ELC and will appear in the next revision to the BOSS book:

<u>NSN</u>	<u>Fig. No.</u>	<u>Noun Name</u>	<u>Part Number</u>
4330-01-437-1228	261	Element, Filter	2040TMOR, RACOR (Fuel Oil)
2090-01-436-9571	625	Arm, Wiper	LE721139-15B
2940-01-438-6729	233-14	Element, Filter	LF3363, Fleetguard (Lube Oil)
6680-01-438-9017	233-29	Tachometer, Elec.	103666, Datcon

The following Part Numbers with NSN have been established by ELC for the Rubrails and will appear in the next revision to the BOSS book:

<u>NSN</u>	<u>Fig. No.</u>	<u>Noun Name</u>	<u>Part Number</u>
5310-01-435-1037	167	Washer, Flat	41UTB1101-2, Rev. A
5307-01-435-0998	167	Stud, Plain	41UTB1101-2, Rev. A
5310-01-435-1011	167	Nut, Plain Cap	41UTB1101-2, Rev. A

KIM HOT START UPDATE

The old style hot starts are no longer available from the manufacturer and may not be available through the stock system, depending on stock quantities. The following are directed replacements and available from Kim. You can talk to the technical division, Mr. Ted Smet, at (509) 534-6171 for more information:

<u>Old P/N</u>	<u>Replacement P/N</u>	<u>Noun Name</u>
LB110-1500W	CB125200-000	Entire Unit
KS1012	TFT10-1NPT	100F - 120F Thermostat
KS1214	TFT12-1NPT	120F - 140F Thermostat

When ordering replacement models you will need to specify the thermostat temperature operating range.

FUEL OIL SUPPLY TUBE

The fuel oil supply tube between the sight glass and fuel pump will be incorporated into the BOSS book. This part can be purchased through Cummins Ohio using P/N 10-049-10.

GRAPNEL HOOK

The BOSS book listed two different sized grapnel hooks for the boat. There was a 4lb and a 15lb. The correct hook is the 4lb, NSN 2040-00-287-9644. The 15lb will be removed from the BOSS book during it's next revision.

ELECTRICAL SHORE TIE PLUG

HUBBLE Plug P/N M14100C12R, NSN 5935-01-399-6803 has been listed in FEDLOG for a cost of \$635.45. This NSN is managed by ELC and the actual reimbursable charge is \$220.00. ELC has taken corrective action to update FEDLOG pricing.

EXHAUST BLANKET SETS

Another commercial source has been identified for exhaust blanket sets. Upon request, the company will provide detailed instructions on how to order custom fit blankets. The source of supply is:

EYEBALL MARINE CONSULTANTS
6120 S.W. Erickson Avenue
Beaverton, OR. 97008-4654
POC: Edward Lanman (503) 646-1813
POC: Tim Thompson (800) 826-8417

REAR MAIN OIL SEAL

The rear oil seal used by the Coast Guard is the Lay Down Lip (LDL) Teflon (TFE) seal, Cummins P/N 218539. This is the only seal that Cummins recommends for use in the marine application of the VT-903M. Other LDL TFE seals are available through Cummins, but are not recommended for CG applications.

When installing a new seal, it is important to consult the 41' UTB Diesel Main Propulsion Unit Manual CG Tech. Pub. 4368). If installing new seal and your old seal operates with a wear sleeve, it is important to consult the VT-903M Shop Manual (Cummins Bulletin No. 3379057-04).

Follow the above references for installation. When ordering a new seal it is important to know whether or not your current seal operates with or without a wear sleeve. Recent research through Cummins Marine Division found that oil seal P/N 218539 can operate with or without a wear sleeve satisfactorily. If a wear sleeve is needed, because of wear to the adapter, use repair sleeve P/N 3006741.

The 41' BOSS book lists these items in Figure 233-10, Page II-30. These are the NSN listing for them:

Seal, Crankshaft	P/N 218539	NSN 5330-01-132-6645
Sleeve, Crankshaft	P/N 3006741	NSN 2815-01-163-0803

CG-P5 DEWATERING PUMP

The CG-P5 dewatering pump, NSN 4320-01-326-5935, is no longer available through the stock system. Due to the obsolescence of the pump engine, it is no longer available through the manufacturer. If you have ordered this pump, the order has been canceled. A replacement pump is being researched at this time.

In the interim, units are authorized to replace the CG-P5 with CG-P1 dewatering pumps, NSN 4320-01-150-8901, as needed to maintain an operational readiness posture. Refer to ALDIST 083/97, COMDT msg 081205Z APR 97, if you have any questions.

POSITION CONFIRMATION

BM1 James S. Giuffre

"We're here". "Okay Boats, prove it".

Instant stress.

That stress is the basis of this article. How do we go about confirming our position at the end of the nav. run without becoming a nervous wreck. The most reliable method for accomplishing this is the use of predetermined ranges and/or bearings taken from our chart and preset on the radar screen prior to our arrival at the position. Prior to arrival? What exactly is meant by that? Well, just what it says. Take the extra minute and plot some ranges and/or bearings from the final position, preset the information on the radar screen, and run to the spot.

We can do that? Sure we can, in fact it is highly encouraged. I think we can all be in agreement with the concept that it is easier and more effective to know in advance what we are looking for with the knowledge that it's correct compared with searching for an unknown with the hope that it fits later. Our radar is full of gizmos and gadgets designed specifically to fill this bill.

The most basic of these is the VRM (Variable Range Marker) function. A measured distance to a fixed object will always remain the same. Two or more ranges combined with a good fathometer reading will provide enough information to support our claim of being at the plotted position. When the preset ranges make simultaneous contact with their respective objects, stop the boat, and take all way off. The preset ranges on the radar screen combined with the information on our chart confirm the position so there is nothing to search for, measure, or plot.

The use of bearings to confirm our position is also an acceptable method. However, bearings are subject to change based upon the swing of the boat which is unless we are tied to the dock, a constant while underway. A common pitfall is the use of magnetic or true bearings interfaced from the GPS/Loran C unit. These bearings are dependent upon the information processed while the boat is underway making way. Once the boat stops, the bearing information will tend to wander or vary because the unit is trying to average very small changes in the position of the boat. Relative bearings will always be relative and only be dependent upon the compass heading. Relative, true, and magnetic bearings may be plotted in advance and preset on the radar screen just like ranges. A key factor to making this work is that the boat must be steered on course and on

the track line plotted, otherwise the bearings will be different and our position will be out the window.

The mix of one range and one bearing from a single object works well but once again it is dependent on being on course and on the track line. Although this carries the same pitfalls previously discussed, it does let us utilize only one object to confirm our position. With practice, this method is highly effective. The next paragraph on this subject will address a higher function on the radar designed to assist with the range and bearing from a single object method. Proceed with caution. If this causes confusion, remember to keep life simple and go with what you know.

F.EBL. (Floating Electronic Bearing Line) allows us to use a range and bearing from a position on the radar screen other than the center. F.EBL uses VRM 2 and EBL 2 for its default. That is why we need to try and use VRM1 and EBL 1 for our preset ranges and bearings if we anticipate using the F.EBL. Why am I bothering to write this down? It might reduce some frustration when we try to put this in motion. The use of a single range and bearing from one object creates an intersection on the radar screen that we can utilize with our F.EBL. First, manually open VRM 2 and EBL 2 and set both at 000. What this does for us is when we use the F.EBL, the VRM and EBL are preset to the values we need. After presetting the range and bearing on the radar screen using VRM 1 and EBL 1, bring up the F.EBL function, set the origin (+) at the intersection created by the range and bearing and enable it. What we should see is a 000deg bearing line from the intersection of the range and bearing. So what is the value of that? In the relative mode, 000deg is our track line. So if we are steering our course and we are on our track line, the F.EBL bearing line should make contact with the object we plotted from. If all the pieces are flying in the right direction, this will not only tell us when we arrive at our position, but also if we are left or right of our track line. How? If the 000deg bearing line is left of our object on the radar screen, then we are left of track, if its to the right then we are right of track. Once again the key is steering the course. Make any adjustments back to the track line using the information available at the time we are on course. Remember, if we make a course change or adjustment, then our bearing(s) require the same attention.

Hopefully this will give us a few more tools for our tool bag and help us explore other functions within the radar. However, as with any skill, practice is still the key to proficiency.

GROUNDING WAND

By MKC Tom Gigliotti

We have found a replacement grounding wand. Burlington Safety Labs Inc., of Burlington, NJ., was able to have one manufactured to match the existing one. It comes complete with the wire, attaching clip, and a wall mount. If you would like to order one, you can reach them at 1-800-220-2120, P/N H22497. When we purchased it, it cost \$186.00, which is \$70.00 more than the wand it is replacing.

The correct location to mount it is to the horizontal stiffener under the engine room viewing window in the forward cabin stowage area. Mount the wand horizontal and coil the wire on the clip before clipping the into place. Any questions, give me a call.



MATERIEL INSPECTION JOB AID - ERROR SHEET**SUMMARY OF CHANGES**

On page 4-2, Engine Room Vents, change the paragraph to read as follows:

**ENGINE ROOM
VENTS**

The main deck is provided with two intake vents aft and two exhaust vents forward, port and starboard. The exhaust vents are part of the pilothouse and are painted white. The intake vents are mounted under the main deck handrails, are painted spar, and have a metal grating over the intake port. Check around the base where the vents meet the main deck for corrosion or missing hardware. The vents may be painted black.

On page 7-2, Mufflers and Clamps, change the paragraph to read as follows:

**MUFFLERS
AND CLAMPS**

Inspect the mufflers for indications of exhaust or water leaks. Ensure that there are two stainless steel hose clamps at each end of the muffler hoses on stainless steel mufflers or two at each end of the muffler on the neoprene mufflers. Either type of muffler may be used.

On page 9-3, Stokes Litter, change inspection frequency from “semiannual” to “quarterly”.

On page 10-1, Starboard Bench Seat Storage Area; change the first paragraph to read as follows:

All PFDs should have a personal marker light (PML), retroreflective tape, a whistle, and the boat's number on them. Ensure that the PMLs are not expired.

On page 12-9, Speakers; change the paragraph to read as follows:

SPEAKERS

There are three speakers installed in the pilothouse. Above the port and starboard windows forward, there should be two MCX speakers, guard (port side) and working (starboard side). The ADF speaker is on the centerline above the center windshield.

On page 15-3, Battery Charger, in the first paragraph, first sentence, change the word “**port**” to “**starboard**”.

On page 15-4, Ventilation Ducts and Screens, change the text to read the following, although the references remain the same:

**VENTILATION
DUCTS AND
SCREENS**

There are four (04) vents into the engine room.

There is one forward of each engine (exhaust) in the overhead. They have expanded metal screening over them. Ensure that they are in good repair.

There is one aft of each engine (supply), against the hull, that extends to the bilge level.

R 251800Z APR 97

FM COMDT COGARD WASHINGTON DC//G-OCS//

TO ALDIST

BT

UNCLAS //N16114//

ALDIST 102/97

COMDTNOTE 16114

SUBJ: MLB/UTB STANDARDIZATION PROGRAM POLICY CHANGE

A. MOTOR LIFEBOAT & UTILITY BOAT STANDARDIZATION PROGRAM MANUAL, COMDTINST M16114.24

B. BOAT CREW QUALIFICATION GUIDE, COMDTINST M16114.11

C. BOAT CREW QUALIFICATION GUIDE, COMDTINST M16114.6

D. BOAT CREW QUALIFICATION GUIDE, COMDTINST M16114.10

1. THE FOLLOWING CHANGES TO THE MLB/UTB STANDARDIZATION PROGRAM ARE EFFECTIVE IMMEDIATELY. REF A WILL BE AMENDED ACCORDINGLY IN THE NEAR FUTURE.

A. DURING STANTEAM VISITS, INSPECTORS SHALL VERIFY CERTIFICATION CURRENCY FOR ALL CREWMEMBERS WHO ARE PARTICIPATING IN UNDERWAY EXERCISES, INCLUDING THE SENIOR BOATSWAINS MATE, XPO, AND OIC.

B. STANTEAM INSPECTORS SHALL SELECT A SAMPLING OF A UNITS TRAINING RECORDS FOR REVIEW IN ORDER TO ASSESS THE EFFECTIVENESS OF THE UNITS TRAINING PROGRAM. THE TRAINING RECORD OF THE SENIOR BOATSWAINS MATE, XPO AND OIC MAY BE AMONG THOSE SELECTED.

C. FOR SAFETY REASONS, NO FULL POWER TRIALS WILL BE PERFORMED IN PERIODS OF DARKNESS OR REDUCED VISIBILITY.

D. STANDARDIZATION TEAMS SHALL REPORT ALL DEFICIENCIES NOTED DURING THE ASSESSMENT VISIT (MINOR, MAJOR, AND RESTRICTIVE).

E. STANTEAM INSPECTORS SHALL ALWAYS HAVE THE OPTION OF DECLINING UNDERWAY EVOLUTIONS IF, IN THE INSPECTORS JUDGMENT, A HAZARDOUS CONDITION EXISTS (PERSONNEL OR MATERIEL).

F. STANTEAMS WILL CONDUCT AN IN-BRIEF WITH THE UNIT COMMANDER AND THE DEPT HEADS UPON ARRIVAL TO THE UNIT. THE IN-BRIEF MAY BE CONDUCTED AS AN ALL HANDS EVENT IF REQUESTED BY THE UNIT COMMANDER. THE POST VISIT ASSESSMENT DEBRIEF WILL BE GIVEN TO THE UNIT COMMANDER AND THE DEPT HEADS. IF INSPECTED BY THE UNIT COMMANDER, THE POST VISIT ASSESSMENT DEBRIEF MAY ALSO BE CONDUCTED AS AN ALL HANDS EVENT.

2. ADDITIONAL DRILLS WILL BE ADDED TO THE POOL OF DRILLS AVAILABLE TO THE INSPECTORS. AMONG THE DRILLS ARE: ENGINE ROOM FIRE, REDUCED VISIBILITY, 6 SAR PATTERNS, BECCE DRILLS AND COXN CASUALTY. THE ADDITIONAL DRILLS ARE TASKS THAT ALL BOAT CREWS ARE RESPONSIBLE FOR IAW REF B THRU D. THE ADDITIONAL DRILLS WILL NOT BE USED UNTIL REVISIONS TO REF A HAVE BEEN DISTRIBUTED.

3. THE PURPOSE OF THE STANDARDIZATION PROGRAM IS TO ENSURE BOAT CREW PROFICIENCY, AND SAFETY AND OPERATIONAL READINESS OF THE UTB/MLB. THE STANTEAM'S FINAL ASSESSMENT REPORTS ARE A VALUABLE TOOL FOR UNIT AND OPERATIONAL COMMANDERS TO USE IN DETERMINING THE EFFECTIVENESS OF THE GROUP AND UNIT LEVEL TRAINING, AND THE READINESS OF EACH VESSEL AND CREW. THE STRENGTH OF THIS PROGRAM IS INTEGRAL TO THE SAFE AND PROFESSIONAL OPERATION OF UTBS AND MLBS.

4. POC LT JOHN HOMAN (202) 267-1590 OR CWO GARY WRIGHT (202) 267-2868.

5. RELEASED BY RADM N. T. SAUNDERS.

BT

P 091950Z MAY 97

FM COMDT COGARD WASHINGTON DC//G-SEN/G-OCS//

TO AIG FOUR NINE SEVEN EIGHT

BT

UNCLAS //N09200//

SUBJ: VT903 RPM PARAMETER CHANGE

A. COMDT COGARD WASHINGTON DC 241814Z OCT 95

B. 41 UTB OPERATOR'S HANDBOOK, COMDTINST M16114.2B

C. 41' UTB PREVENTATIVE MAINTENANCE MANUAL, TP2061

1. REF A ESTABLISHED NEW OPERATING PARAMETERS FOR THE VT903. THE RPM PARAMETER SET BY REF A IS UNNECESSARILY RESTRICTIVE. EFFECTIVE IMMEDIATELY, THE FULL LOAD MAXIMUM RPM RANGE FOR THE VT903 IS EXPANDED TO A MINIMUM OF 2575 AND A MAXIMUM OF 2700. REF B AND C WILL BE AMENDED ACCORDINGLY. THE ORIGINAL EQUIPMENT MANUFACTURER (OEM) CONCURS WITH THE CHANGE.

2. RUNNING THE ENGINE UNDER 2575 RPMS AT FULL THROTTLE CREATES AN OVERFUELING CONDITION, CAUSING AN INCREASE IN EXHAUST TEMPERATURE AND IS NOT RECOMMENDED BY THE OEM. UNITS WITH ENGINE RPM'S BEYOND THIS RANGE, EITHER ON THE LOW OR HIGH END, SHALL USE SOUND ENGINEERING PRACTICES TO DETERMINE THE CAUSE OF THE DISCREPANCY.

3. POC FOR QUESTIONS: CWO CARLTON RITTENHOUSE, ELC (01-014) AT (410) 762-6188 OR LT JOHN HOMAN, COMDT (G-OCS-2) AT (202) 267-1590.

BT